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EXAMINER	
VEZERIS, JAMES A	

ART UNIT	PAPER NUMBER
3693	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/768,334	ANGELL, ROBERT LEE	
	Examiner	Art Unit	
	JAMES A. VEZERIS	3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Final Rejection

Pre-Exam Formalities

1. Examiner notes that the applicant has amended claims 10, 11, 22, and 23 to over come a U.S.C.112 2nd Paragraph Rejection. The 112 2nd Paragraph rejection of claims 10, 11, 22, and 23 are now withdrawn.

2. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection based on the amended claims.

Detailed Action

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 7, 13, 14, 19, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 7,333,923 to Yamanishi et al. (Hereinafter "Yamanishi").

Regarding Claims 1, 13, 25.

Yamanishi teaches a method, in a data processing system, for detecting fraud, the method comprising:

receiving a set of historical data; (Summary of the Invention)

identifying a plurality of control points in the historical data; (Summary of the Invention)

building at least one data model based on the plurality of control points; (Summary of the Invention)

receiving a set of updated data; (Summary of the Invention)

identifying one or more new control points based on the updated data; (Summary of the Invention)

adjusting the at least one data model to form an adjusted date model, within the at least one data model, based on the one or more new control points, wherein the at least one data model is refined for a plurality of iterations; (Summary of the Invention)

verifying a transaction based on the adjusted data model. (See Col 1 Lines 18-25)

Regarding Claim 2, 14.

Yamanishi further teaches the historical data includes at least one of demographic data, psychographic data, transactional data, and environmental data. (See Description of Related Art)

Regarding Claim 7, 19.

Yamanishi further teaches the updated data includes at least one of demographic data, psychographic data, transactional data, and environmental data. (See Description of Related Art)

Claim Rejections- 35 U.S.C. 103(a)

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-6, 8, 9, 15-18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanishi in view of US PG-Pub 2004/0039548 to Selby et al. (Hereinafter "Selby".).

Regarding Claim 3, 15.

Yamanishi further teaches identifying a plurality of control points includes:

identifying a plurality of outliers in a distribution of the historical data by analyzing the historical data using statistical modeling, outlier analysis, and data mining algorithms; (See Summary of Invention)

validating the plurality of outliers; (Summary of Invention)

Yamanishi fails to further teach categorizing the plurality of outliers as valid outliers or invalid outliers.

Shelby teaches categorizing the plurality of outliers as valid outliers or invalid outliers. (Paragraph 23)

It would be obvious for one skilled in the art to modify Yamanishi to validate outliers as in Shelby.

There is motivation to do so because Yamanishi already teaches detecting outliers and a verification of these outliers allows for more precise fraud detection.

Regarding Claim 4, 16.

Yamanishi fails to further teach the plurality of control points are valid outliers.

Shelby teaches the plurality of control points are valid outliers. (Paragraph 23)

It would be obvious for one skilled in the art to modify Yamanishi to validate outliers as in Shelby.

There is motivation to do so because Yamanishi already teaches detecting outliers and a verification of these outliers allows for more precise fraud detection.

Regarding Claim 5, 17.

Yamanishi fails to further teach the plurality of control points are invalid outliers.

Shelby teaches the plurality of control points are valid outliers. (Paragraph 23)

It would be obvious for one skilled in the art to modify Yamanishi to validate outliers as in Shelby.

There is motivation to do so because Yamanishi already teaches detecting outliers and a verification of these outliers allows for more precise fraud detection.

Regarding Claim 6, 18.

Yamanishi fails to further teach the building at least one data model includes a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior.

Shelby teaches the building at least one data model includes a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior. (See Fig 2, Paragraph 26) Examiner notes that the fence, created in Shelby, indicates the averages of all points, which passes through the various control points.

It would be obvious to one skilled in the art to modify Yamanishi to build at least one data model includes a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior as taught in Shelby.

There is motivation to do so because the visual representation helps prevent further fraud.

Regarding Claim 8, 20.

Yamanishi further teaches adjusting the at least one data model includes:

adding the one or more new control points to the at least one data model; (Summary of the Invention)

Shelby teaches generating a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior. (See Fig 2, Paragraph 26) Examiner notes that the fence, created in Shelby, indicates the averages of all points, which passes through the various control points.

It would be obvious to one skilled in the art to modify Yamanishi to build at least one data model includes a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior as taught in Shelby.

There is motivation to do so because the visual representation helps prevent further fraud.

Regarding Claim 9, 21.

Yamanishi further teaches adjusting the at least one data model includes;

changing one or more of the plurality of control points to the one or more new control points in the at least one data model; (Summary of the Invention)

Shelby teaches generating a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior. (See Fig 2, Paragraph 26) Examiner notes that the fence, created in Shelby, indicates the averages of all points, which passes through the various control points.

It would be obvious to one skilled in the art to modify Yamanishi to build at least one data model includes a fence that passes through the plurality of control points, and wherein data points within the fence represent acceptable behavior and data points outside the fence represent unacceptable behavior as taught in Shelby.

There is motivation to do so because the visual representation helps prevent further fraud.

5. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanishi as applied to claim 1 and 13 above, and further in view of US Patent 7,263,506 to Lee et al. (Hereinafter "Lee").

Regarding Claims 10, 22.

Yamanishi fails to teach determining whether the adjusted data model, within the at least one data model, reached a steady state;

Converting the adjusted data model to a static model in response to a determination that the adjusted data model reaches the steady state; and

Refining the at least one data model for an iteration of the plurality of iteration in response to a determination that the adjusted data model has not reached the steady state.

Lee teaches determining whether the adjusted data model, within the at least one data model, reached a steady state;

Converting the adjusted data model to a static model in response to a determination that the adjusted data model reaches the steady state; and

Refining the at least one data model for an iteration of the plurality of iteration in response to a determination that the adjusted data model has not reached the steady state. (See Col 12 Lines 1-19)

It would be obvious to one skilled in the art to modify Yamanishi to determine whether the adjusted data model, within the at least one data model, reached a steady state;

convert the adjusted data model to a static model in response to a determination that the adjusted data model reaches the steady state; and

refine the at least one data model for an iteration of the plurality of iteration in response to a determination that the adjusted data model has not reached the steady state.

There is motivation to do so because processing power is saved by running iteration of data modeling when necessary and consistent fraud parameters can be applied to multiple transactions.

Regarding Claims 11,23.

Yamanishi fails to further teaches determining whether the adjusted data model reached a steady state includes:

Determining a difference between the adjusted data model and a previous data model, within the at least one data model, to form a delta value; and

Determining whether the delta value is less than a threshold.

Lee teaches determining whether the adjusted data model reached a steady state includes:

Determining a difference between the adjusted data model and a previous data model, within the at least one data model, to form a delta value; and

Determining whether the delta value is less than a threshold. (See Col 12 Lines 1-19)

It would be obvious to one skilled in the art to modify Yamanishi to determine whether the adjusted data model reached a steady state includes:

Determine a difference between the adjusted data model and a previous data model, within the at least one data model, to form a delta value; and

Determine whether the delta value is less than a threshold.

There is motivation to do so because processing power is saved by running iteration of data modeling when necessary and consistent fraud parameters can be applied to multiple transactions.

Regarding Claim 12, 24.

Yamanishi fails to further teach where in the threshold is two standard deviations from a mean within a normal distribution of the data.

Lee teaches the threshold is two standard deviations from a mean within a normal distribution of the data. (See Col 12 Lines 1-19) Examiner notes that any number can be used in this system, not just two standard deviations.

It would be obvious to one skilled in the art to modify Yamanishi to set the threshold at two standard deviations from a mean within a normal distribution of the data.

There is motivation to do so because processing power is saved by running iteration of data modeling when necessary and consistent fraud parameters can be applied to multiple transactions.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. VEZERIS whose telephone number is (571)270-1580. The examiner can normally be reached on Monday-alt. Fridays 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

/JAMES A VEZERIS/
Examiner, Art Unit 3693

6/23/2008